

so complete that the leaves receiving the sporids were on May 17th almost entirely orange-colored and the affected twigs could be distinguished several feet away.

On May 17th a second series of sowings under sacs was made. Two weeks later all of these latter had developed the fungus, while the leaves of the first sowing were becoming covered with dark dots, indicating the maturity of the spermagonia. After making the second sowings under sacs a quantity of the *Gymnosporangium* sporidia was scattered over the leaves of certain branches and left uncovered. At the time of writing these branches are easily distinguished by the prevailing orange-color of their affected leaves. The natural sowings are now beginning to develop as small orange spots, but they as yet are few in number and behind those from the artificial sowings. In case of the inoculations that have been made through the agency of the wind the spots are small, circular, and appear as the growth of one spore; while in the artificial sowings the blotches are very irregular and far more vigorous. The leaves first inoculated are now thickening in patches, preparatory to the formation of the *ræstelia* state of the fungus. It remains to determine the species of the *ræstelia* and carry the spores back to the cedar and determine if they will produce the teleutospores of the fungus direct, or whether a *uredo* state is necessary to complete the cycle of forms in this polymorphic fungus.

Sowings have been made upon the cultivated apple and other species of *Pirus*, as well as upon the genus *Cratægus*, but these results are less pronounced and not ready to be set down.—BYRON D. HALSTED, *Iowa Agricultural College*, June 15.

EDITORIAL.

THE *Popular Science Monthly* for June contains a portrait and biographical sketch of the late Dr. George Engelmann. The author is anonymous, but can hardly have been a botanist or he would not be so ignorant of the true authorship of the classic "*Plantæ Fendlerianæ*" as to say—

"In 1849 Dr. Engelmann published in the 'Memoranda [*sic*] of the American Academy of Arts and Sciences' the '*Plantæ Fendlerianæ*.'"

He infelicitously adds, regarding Fendler—

"Fendler and he [Engelmann] had become acquainted on a governmental expedition to the Rocky Mountains, to which the former was attached as engineer. * * * He traveled in the Rocky Mountains, California, Mexico, Central America and Brazil."

Fendler did not become acquainted with Engelmann in this way; he was never attached officially to any governmental expedition; he was not an engineer; and he traveled neither in the Rocky Mountains, nor California, nor Mexico, nor Central America, nor Brazil! The writer of the paragraph can find correct information on these points in Fendler's autobiography published in this journal for June, 1885.

IT IS TO BE hoped that all botanists are taking note of the good things being provided for them at Buffalo. This meeting of the Botanical Club prom-

ises to be the largest one ever held, and being in a most interesting locality, can hardly fail of being both enjoyable and profitable. The great thing is to become acquainted with each other, and with the excursions and receptions arranged for, abundant opportunity for this will be given. Every one should come prepared to give some item to the club, the meetings of which are wholly informal. The first meeting will be held in the room assigned to biology, on Thursday morning at nine o'clock, the second day of the Association. No one interested in botany should fail to register and receive the badge of the club.

THE "HERBARIUM NUMBER" brought in so much material that it was impossible to crowd it all into our thirty-two pages. Nearly eight pages were held over and are given to our readers in this number. The stress of good material has become so great that we have been compelled to enlarge this number to thirty-six pages. Our contributors must not be deterred by this fact from continuing to send articles, but it explains the occasional delay in their appearance, a necessity regretted by no one more than the editors.

THE ONLY addition (so far as we know) to be made to the list of Engelmann's botanical papers, published in this journal for May, 1884, is his elaboration of the Euphorbiaceæ in the Bot. Mex. Bound. Survey. If the writer of the sketch of Engelmann in the *Pop. Sci. Mo.* for June, who remarks that the list is incomplete, can add anything to it, he will confer a great favor on botanists by designating the omissions.

OPEN LETTERS.

Concerning Labels, etc.

While we are bringing together our various herbarium notions, let me say a word about labels. The point I chiefly wish to make is the importance of printing them legibly, and in good Roman type, on paper that is not too stiff. I think that one who has ever had much experience in attaching labels to the sheets will agree with me that one that curls upon itself when wet with the paste is a nuisance. Again, as the rule is to preserve the original collector's labels when sent, is it too much to ask of one in the field to make these as neat as possible? It is perfectly practicable to take with one on an excursion evenly cut slips of paper, instead of odds and ends of envelopes. Of style in labels I have spoken elsewhere; surely it exhibits the "man himself" as much as any style under heaven. I have in mind now certain examples always conducive to ophthalmia.

A word, too, concerning the forwarding of plants for exchange or identification. Do not snip off the tip end of a raceme and forward it to a botanist, without leaves, fruit, or underground parts. In fact, do nothing slovenly. I have had, and that recently, mildewed, discolored fragments sent me, and that by so-called botanists, tied together with strings, with long ribbons of paper wrapped around them for labels, and all rolled up in newspapers. With a beginner one is patient, but he loses his temper when one bedecked with collegiate degrees is guilty of such an offense. Particularly is such an occurrence exasperating when the eviscerated fragments misrepresent plants which are *desiderata*.

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